☐1: AAA44992. envelope polyprot...[gi:328423] BLink, Domains, Links

LOCUS AAA44992 854 aa linear VRL 02-AUG-1993
DEFINITION envelope polyprotein.
ACCESSION AAA44992
VERSION AAA44992.1 GI:328423
DBSOURCE locus HIVNL43 accession M19921.1
KEYWORDS .
SOURCE Human immunodeficiency virus 1 (HIV-1)
ORGANISM Human immunodeficiency virus 1
Viruses; Retroid viruses; Retroviridae; Lentivirus; Primate lentivirus group.
REFERENCE 1 (residues 1 to 854)
AUTHORS Adachi,A., Gendelman,H.E., Koenig,S., Folks,T., Willey,R., Rabson,A. and Martin,M.A.
TITLE Production of acquired immunodeficiency syndrome-associated retrovirus in human and nonhuman cells transfected with an infectious molecular clone
JOURNAL J. Virol. 59 (2), 284-291 (1986)
MEDLINE 86281827
PUBMED 3016298
REFERENCE 2 (residues 1 to 854)
AUTHORS Buckler,C.E., Buckler-White,A.J., Willey,R.L. and McCoy,J.
JOURNAL Unpublished (1988)
REFERENCE 3 (sites)
AUTHORS Dai,L.C., West,K., Littaua,R., Takahashi,K. and Ennis,F.A.
TITLE Mutation of human immunodeficiency virus type 1 at amino acid 585 on gp41 results in loss of killing by CD8+ A24-restricted cytotoxic T lymphocytes
JOURNAL J. Virol. 66 (5), 3151-3154 (1992)
MEDLINE 92219406
PUBMED 1373204
COMMENT [3] sites; revisions of [3].
Clean copy of sequence [3] kindly provided by Chuck Buckler, NIAID, Bethesda, MD, 24-JUN-1988. The construction of pNL4-3 has been described in [1]. pNL4-3 is a recombinant (infectious) proviral clone that contains DNA from HIV isolates NY5 (5' half) and BRU (3' half). The site of recombination is the EcoRI site at positions 5743-5748.
The length and sequence of the vpr coding region corresponds to that of the BRU, SC, SF2, MAL and ELI isolates. The vpr coding region of these isolates is about 18 amino acid residues longer than the vpr coding region of the IIIb isolates. In HIVNL43, this shift is due to a single base deletion (with respect to the IIIb's) at position 5770. The sequence at this position is 'atttc' in HIVNL43 and 'attttc' in HIVHXB2.
The original BRU clone, sequenced by Wain-Hobson, et al. (Cell 40, 9-17 (1985)), and the BRU portion of the pNL4-3 recombinant clone are different clones from the same BRU isolate.
Two of the revisions reported in the FEATURES produced changes in amino acid sequences. The revision at position 2421 changes one amino acid residue from 'R' to 'G' in the pol coding region. The revision at positions 8995-9000 changes three amino acid residues from 'AHT' to 'VTP' in the nef coding region.

```
          Method: conceptual translation.
FEATURES             Location/Qualifiers
     source          1..854
                     /organism="Human immunodeficiency virus 1"
                     /db_xref="taxon:11676"
     Protein         1..854
                     /name="envelope polyprotein"
     CDS             1..854
                     /coded_by="M19921.1:6221..8785"
ORIGIN
        1 mrvkekyqhl wrwgwkwgtm llgilmicsa teklwvtvyy gvpvwkeatt tlfcasdaka
       61 ydtevhnvwa thacvptdpn pqevvlvnvt enfnmwkndm veqmhediis lwdqslkpcv
      121 kltplcvslk ctdlkndtnt nsssgrmime kgeikncsfn istsirdkvq keyaffykld
      181 ivpidntsyr liscntsvit qacpkvsfep ipihycapag failkcnnkt fngtgpctnv
      241 stvqcthgir pvvstqllln gslaeedvvi rsanftdnak tiivqlntsv einctrpnnn
      301 trksiriqrg pgrafvtigk ignmrqahcn israkwnatl kqiasklreq fgnnktiifk
      361 qssggdpeiv thsfncggef fycnstqlfn stwfnstwst egsnntegsd titlpcrikq
      421 finmwqevgk amyappisgq ircssnitgl lltrdggnnn ngseifrpgg gdmrdnwrse
      481 lykykvvkie plgvaptkak rrvvqrekra vgigalflgf lgaagstmgc tsmtltvqar
      541 qllsdivqqq nnllraieaq qhllqltvwg ikqlqarila verylkdqql lgiwgcsgkl
      601 icttavpwna swsnksleqi wnnmtwmewd reinnytsli hslieesqnq qekneqelle
      661 ldkwaslwnw fnitnwlwyi klfimivggl vglrivfavl sivnrvrqgy splsfqthlp
      721 iprgpdrpeg ieeeggerdr drsirlvngs laliwddlrs lclfsyhrlr dlllivtriv
      781 ellgrrgwea lkywwnllqy wsqelknsav nllnataiav aegtdrviev lqaayrairh
      841 iprrirqgle rill
//
```

1: AAB59751. envelope polyprot...[gi:326424] BLink, Domains, Links

```
LOCUS       AAB59751                861 aa            linear   VRL 02-AUG-1993
DEFINITION  envelope polyprotein.
ACCESSION   AAB59751
VERSION     AAB59751.1  GI:326424
DBSOURCE    locus HIVBRUCG accession K02013.1
KEYWORDS    .
SOURCE      Human immunodeficiency virus 1 (HIV-1)
  ORGANISM  Human immunodeficiency virus 1
            Viruses; Retroid viruses; Retroviridae; Lentivirus; Primate
            lentivirus group.
REFERENCE   1  (residues 1 to 861)
  AUTHORS   Wain-Hobson,S., Sonigo,P., Danos,O., Cole,S. and Alizon,M.
  TITLE     Nucleotide sequence of the AIDS virus, LAV
  JOURNAL   Cell 40 (1), 9-17 (1985)
  MEDLINE   85099333
   PUBMED   2981635
COMMENT     [(in) Weiss,R., Teich,N., Varmus,H. and Coffin,J. (Eds.);RNA Tumor
            Viruses,Molecu]  review.
            [3]  revision of [1].
            The original LAV, sometimes called LAV-1 to distinguish it from
            HIV2 (LAV-2), is now referred to as HIV-1bru. An infectious clone
            of this virus has been constructed by Keith Peden, Molecular Bio-
            logy and Genetics, Johns Hopkins University School of Medicine,
            Baltimore, MD 21205 (301) 955-3652. HIVNL43 is also an infectious
            clone having for its 3' half a clone of the BRU isolate. Acquired
            immune deficiency syndrome (AIDS) is caused by a retrovirus known
            by several different names, probably representing two separate
            strains: human T-cell lymphotropic virus-III (HTLV-III) and
            lymphadenopathy-associated virus (LAV) are thought to be one
            strain, and AIDS-associated retrovirus type 2 (ARV-2) the other.
            All three viruses, whose sequences do not differ by more than about
            6%, are believed to belong to the retroviral subfamily
            Lentiviridae, or 'slow' viruses.
            For the details of the annotation and for other pertinent
            references, see the HIV reference entry.
            Method: conceptual translation.
FEATURES             Location/Qualifiers
     source          1..861
                     /organism="Human immunodeficiency virus 1"
                     /db_xref="taxon:11676"
     Protein         1..861
                     /name="envelope polyprotein"
     CDS             1..861
                     /coded_by="K02013.1:5803..8388"
ORIGIN
        1 mrvkekyqhl wrwgwkwgtm llgilmicsa teklwvtvyy gvpvwkeatt tlfcasdaka
       61 ydtevhnvwa thacvptdpn pqevvlvnvt enfnmwkndm veqmhediis lwdqslkpcv
      121 kltplcvslk ctdlgnatnt nssntnsssg emmmekgeik ncsfnistsi rgkvqkeyaf
      181 fykldiipid ndttsytlts cntsvitqac pkvsfepipi hycapagfai lkcnnktfng
      241 tgpctnvstv qcthgirpvv stqlllngsl aeeevvirsa nftdnaktii vqlnqsvein
      301 ctrpnnntrk siriqrgpgr afvtigkign mrqahcnisr akwnatlkqi asklreqfgn
      361 nktiifkqss ggdpeivths fncggeffyc nstqlfnstw fnstwstegs nntegsdtit
```

```
      421 lpcrikqfin mwqevgkamy appisgqirc ssnitglllt rdggnnnngs eifrpgggdm
      481 rdnwrselyk ykvvkieplg vaptkakrrv vqrekravgi galflgflga agstmgarsm
      541 tltvqarqll sgivqqqnnl lraieaqqhl lqltvwgikq lqarilaver ylkdqqllgi
      601 wgcsgklict tavpwnasws nksleqiwnn mtwmewdrei nnytslihsl ieesqnqqek
      661 neqelleldk waslwnwfni tnwlwyikif imivgglvgl rivfavlsiv nrvrqgyspl
      721 sfqthlptpr gpdrpegiee eggerdrdrs irlvngslal iwddlrslcl fsyhrlrdll
      781 livtrivell grrgwealky wwnllqywsq elknsavsll nataiavaeg tdrvievvqg
      841 acrairhipr rirqgleril l
//
```

1: AAB59873. envelope polyprot...[gi:328559] BLink, Domains, Links

```
LOCUS       AAB59873                856 aa            linear   VRL 01-OCT-1999
DEFINITION  envelope polyprotein [Human immunodeficiency virus type 1].
ACCESSION   AAB59873
VERSION     AAB59873.1  GI:328559
DBSOURCE    locus HIVPV22 accession K02083.1
KEYWORDS    .
SOURCE      Human immunodeficiency virus 1 (HIV-1)
  ORGANISM  Human immunodeficiency virus 1
            Viruses; Retroid viruses; Retroviridae; Lentivirus; Primate
            lentivirus group.
REFERENCE   1  (residues 1 to 856)
  AUTHORS   Muesing,M.A., Smith,D.H., Cabradilla,C.D., Benton,C.V., Lasky,L.A.
            and Capon,D.J.
  TITLE     Nucleic acid structure and expression of the human
            AIDS/lymphadenopathy retrovirus
  JOURNAL   Nature 313 (6002), 450-458 (1985)
  MEDLINE   85111157
   PUBMED   2982104
REFERENCE   2  (sites)
  AUTHORS   van Beveren,C.P., Coffin,J. and Hughes,S.
  TITLE     Appendix B: HTLV-3/LAV genome
  JOURNAL   (in) Weiss,R.L., Teich,N., Varmus,H. and Coffin,J. (Eds.);
            RNA TUMOR VIRUSES, MOLECULAR BIOLOGY OF TUMOR VIRUSES, SECOND
            EDITION, 2: Supplements and Appendixes: 1106-1123;
            Cold Spring Harbor Laboratory, CSH, NY (1985)
COMMENT     [1]  revised sequence, personal communication.
            [(in) Weiss,R., Teich,N., Varmus,H. and Coffin,J. (Eds.);RNA Tumor
            Viruses,Molecu]  review; bases 1 to 9769.
            [3]  revises [1],[(in) Weiss,R., Teich,N., Varmus,H. and Coffin,J.
            (Eds.);RNA Tumor Viruses,Molecu].
            This sequence for a H9/HTLV-III virus was determined from one
            complete proviral clone [1]. Additionally, several cDNA clones of
            the viral RNA were sequenced for comparison with the entire
            proviral sequence. The differences between cDNA and proviral DNA
            are extensive and are listed in the Sites Table as variations. The
            authors believe that the variations may be due in part to different
            strains in the H9/HTLV-III cell line, because it was established by
            infection with material from several AIDS patients. With the
            addition of g at 2111, gag cds and pol cds are very close to those
            of HXB2, BRU, and related HIV viruses.
            For details and other references pertaining to Sites and Features,
            see the HIV reference entry.
            Method: conceptual translation.
FEATURES             Location/Qualifiers
     source          1..856
                     /organism="Human immunodeficiency virus 1"
                     /proviral
                     /db_xref="taxon:11676"
     Protein         1..856
                     /name="envelope polyprotein"
     CDS             1..856
                     /coded_by="K02083.1:6267..8837"
```

ORIGIN

```
        1 mrvkekyqhl wrwgwrwgtm llgmlmicsa teklwvtvyy gvpvwkeatt tlfcasdaka
       61 ydtevhnvwa thacvptdpn pqevvlvnvt enfnmwkndm veqmhediis lwdqslkpcv
      121 kltplcvslk ctdlkndtnt nsssgrmime kgeikncsfn istsirgkvq keyaffykld
      181 iipidndtts ytltscntsv itqacpkvsf epipihycap agfailkcnn ktfngtgpct
      241 nvstvqcthg irpvvstqll lngslaeeev virsanftdn aktiivqlnq sveinctrpn
      301 nntrksiriq rgpgrafvti gkignmrqah cnisrakwnn tlkqidsklr eqfgnnktii
      361 fkqssggdpe ivthsfncgg effycnstql fnstwfnstw stegsnnteg sdtitlpcri
      421 kqfinmwqev gkamyappis gqircssnit gllltrdggn nnneseifrp gggdmrdnwr
      481 selykykvvk ieplgvaptk akrrvvqrek ravgigalfl gflgaagstm gaasmtltvq
      541 arqllsgivq qqnnllraie aqqhllqltv wgikqlqari laverylkdq qllgiwgcsg
      601 klicttavpw naswsnksle qiwnnmtwme wdreinnyts lihslieesq nqqekneqel
      661 leldkwanlw nwlnitnwlw yiklfimivg glvglrivfa vlsivnrvrq gysplsfqth
      721 lptprgpdrp egieeedger drdrsirlvn gslaliwddl rslclfsyhr lrdlllivtr
      781 ivellgrrgw ealkywwnll qywsqelkns avsllnatai avaegtdrvi evvqgayrai
      841 rhiprrirqg lerill
//
```


Oct 29 2003 07:23:28